

WHAT IS CLAIMED IS:

1. A skeleton drum around which a sheet can be wound and fixed, the drum comprising:

(A) a rotating shaft;

(B) a plurality of narrow cylindrical supports, each support having a support surface for supporting the sheet and being arranged so as to be coaxial with the rotating shaft such that an interval, which is larger than a width of the support, is formed between the supports; and

(C) a plurality of chucks for pressing a leading edge and a trailing edge of the sheet toward the rotating shaft.

2. The drum of claim 1, wherein the drum is for fixing the sheet when the sheet is to be scan-exposed.

3. The drum of claim 1, wherein each of the supports comprises a bearing attached around the rotating shaft, a narrow cylinder coaxial with the rotating shaft, and a plurality of ribs integrally connecting the bearing and the narrow cylinder.

4. The drum of claim 1, wherein the support surface of each support exists on an imaginary cylindrical surface which is coaxial with the rotating shaft.

5. The drum of claim 1, wherein the support surface of each support extends around a periphery of the drum.

6. The drum of claim 1, wherein the chucks include a leading edge chuck for pressing the leading edge of the sheet, and a trailing edge chuck for pressing the trailing edge of the sheet.

7. The drum of claim 6, wherein a position of the leading edge chuck around the periphery of the drum is fixed, and a position of the trailing edge chuck around the periphery of the drum is changeable.

8. The drum of claim 6, further comprising an urging structure, which urges the trailing edge chuck to pull the sheet around the periphery of the drum when the sheet is pressed by the trailing edge chuck.

9. The drum of claim 6, wherein the trailing edge chuck comprises:
a support structure comprising a support that is removably attached to the drum;

a plate, one end of which is for pressing the trailing edge of the sheet, and which is pivotally connected to the drum via the support structure; and

an elastic element connected to an other end of the plate which, when the support is attached to the drum, applies force to the other

end of the plate by being elastically deformed such that the one end of the plate pivotally rotates toward the rotating shaft to press the sheet.

10. The drum of claim 9, wherein a center of gravity of the plate is positioned between the ends, and the support is connected to the plate on the side of the one end, relative to the center of gravity such that a centrifugal force acting on the plate when the drum is rotated increases force for pressing the sheet.

11. A skeleton drum around which a sheet can be wound and fixed, the drum comprising:

(a) a rotating shaft;

(B) a plurality of wide cylindrical supports, each support having a support surface for supporting the sheet and being arranged so as to be coaxial with the rotating shaft such that an interval, which is smaller than a width of the each support, is formed between the supports; and

(C) a plurality of chucks for pressing a leading edge and a trailing edge of the sheet toward the rotating shaft.

12. The drum of claim 11, wherein the drum is for fixing the sheet when the sheet is to be scan-exposed.

13. The drum of claim 11, wherein the support surface of each support is disposed on an imaginary cylindrical surface coaxial with the rotating shaft.

14. The drum of claim 11, wherein the support surface of each support extends around a periphery of the drum.

15. The drum of claim 11, wherein the chucks include a leading edge chuck for pressing the leading edge of the sheet, and a trailing edge chuck for pressing the trailing edge of the sheet.

16. A skeleton drum, around which a sheet can be wound and fixed, and which has a substantial star-shape in sectional view, the drum comprising:

(a) a rotating shaft;

(b) a plurality of plates, each of the plates extending radially from an external periphery of the rotating shaft, and having a support surface for supporting the sheet; and

(c) a plurality of chucks for pressing a leading edge and a trailing edge of the sheet toward the rotating shaft.

17. The drum of claim 16, wherein the drum is for fixing the sheet when the sheet is to be scan-exposed.

18. The drum of claim 16, wherein the support surface of each support exists on an imaginary cylindrical surface coaxial with the rotating shaft.

19. The drum of claim 16, wherein the chucks include a leading edge chuck for pressing the leading edge of the sheet, and a trailing edge chuck for pressing the trailing edge of the sheet.

20. The drum of claim 16, further comprising a cylindrical film body which extends around a periphery of the drum so as to be suspended between the support surfaces and is interposable between the sheet and the support surfaces.